

**DISTRICT COURT, WATER DIVISION 6,
STATE OF COLORADO**

Routt County Justice Center
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DATE FILED: November 7, 2018 4:59 PM
FILING ID: DEED4EE7BA83C
CASE NUMBER: 2017CW3045

DRAFT
11-07-18

**CONCERNING THE APPLICATION FOR WATER
RIGHTS OF:**

TERRACARTA ENERGY RESOURCES, LLC,

in the South Fork of the White River,

in Rio Blanco County, Colorado.

▲ COURT USE ONLY ▲

**Case Number:
17CW3045**

**FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE
AND DECREE OF THE WATER COURT**

The Application in this case was filed on December 29, 2017 (“Application”), and was referred to the Water Referee for Water Division 6, State of Colorado, by the Water Judge of this Court in accordance with C.R.S. §§ 37-92-101, *et seq.*, known as the Water Right Determination and Administration Act of 1969.

The undersigned Referee, having made such investigations as are necessary to determine whether or not the statements in the Application are true, and having been fully advised of the subject matter of the Application, does hereby make the following determination and Ruling as the Referee in this matter:

FINDINGS OF FACT

1. Application. The statements in the Application are true, except as may be otherwise stated herein.
2. Applicant. Name and mailing address of Applicant:

TerraCarta Energy Resources, LLC
106 E. Liberty Drive
Wheaton, IL 60187

With copies to:

Jefferson V. Houpt
Ryan M. Jarvis
Beattie, Houpt & Jarvis, LLP
932 Cooper Avenue
Glenwood Springs, CO 81601
jeff@bhjlegal.com
ryan@bhjlegal.com
(970) 945-8659

3. Notice and Jurisdiction. Timely and adequate notice of the pendency of these proceedings has been given in the manner required by C.R.S. § 37-92-302(3). Applicant filed its Application for Change of Water Right on December 29, 2017. The Application was supplemented with evidence that copies of the Application were mailed to the owners of affected lands pursuant to C.R.S. § 37-92-302(2)(b)(II). The Application was properly published in the resume for Water Division 6 and newspapers of general circulation as identified by the Court. The Court has jurisdiction over the Application and over all entities or persons who had standing to appear even though they did not do so.
4. Opposition. Statements of Opposition were filed by Rio Blanco Water Conservancy District, 4M Ranch, LLC, Mountain Water LLC, Thompson/Quinn Families, Puckett Land Company, Colorado Water Conservation Board, U.S. Department of the Interior, Exxon Mobil Corporation and The Oil Shale Corporation. No other Statements of Opposition were filed, and the time for filing Statements of Opposition has expired. In resolution of the opposition, the Applicant has entered into stipulations with the following parties:
 - a. Rio Blanco Water Conservancy District dated ____;
 - b. 4M Ranch, LLC dated ____;
 - c. Mountain Water LLC dated ____;
 - d. Thompson/Quinn Families dated ____;
 - e. Puckett Land Company dated ____;
 - f. Colorado Water Conservation Board dated ____;
 - g. U.S. Department of the Interior dated ____;
 - h. Exxon Mobil Corporation dated ____; and
 - i. The Oil Shale Corporation dated ____.
5. Report of the Division Engineer. The Court has given due consideration to the Report of the Division Engineer dated July 13, 2018, and Applicant's Response to Report of the Division Engineer dated November 7, 2018.
6. Claim; Change of Water Right. The Applicant has requested approval of a change of decreed water right described as follows (sometimes referred to herein as the "South Fork Reservoir Right"):

- A. *Name of structure:* **South Fork Reservoir.**
 - B. *Original decree:* Civil Action No. 1269, entered on November 21, 1966, by the Rio Blanco County District Court.
 - C. *Subsequent decrees awarded findings of diligence:* Case Nos. 80CW220, 84CW174, 88CW158, 95CW253 and 02CW296, by the District Court in and for Water Division 5; and Case No. 10CW29, by the District Court in and for Water Division 6.
 - D. *Legal description as described in the decree entered in Case No. 10CW29:* The reservoir is to be located in Sections 21, 22, 23, 24, 25, 26, 27 and 28, Township 2 South, Range 90 West of the 6th P.M. The initial point of survey of the high water line of the South Fork Reservoir is located at the intersection of the dam axis with the stream channel of the South Fork of the White River, which is described as a point whence the Northeast Corner of Section 28, Township 2 South, Range 90 West of the 6th P.M. bears North 50E31' East a distance of 4,382 feet, which is approximately 2,484 feet north of the South Section line and 3,303 feet west of the East section line of said section. This point is depicted on the location map attached hereto as **Exhibit A.**
 - E. *Decreed source of water:* South Fork of the White River, tributary to the White River.
 - F. *Appropriation date:* September 14, 1964.
 - G. *Total amount decreed to structure:* 85,342.4 acre feet, conditional.
 - H. *Decreed uses:* Industrial, domestic, recreational and irrigation.
 - I. *Amount of water that Applicant intends to change:* 85,342.4 acre feet, conditional.
7. Statement of Proposed Change. Applicant seeks to change the location of storage of the entire South Fork Reservoir Right described above to three alternative reservoir sites. All or a majority of the water will be stored in one of two alternative reservoirs: South Fork Reservoir No. 1 is a proposed reservoir located on the channel of Wolf Creek, a tributary of the White River, as described in subparagraph 7.A. below, which would be filled by pumping water from the White River into the reservoir via South Fork Reservoir No. 1 Pump and Pipeline and by capturing the natural inflow from Divide Creek, Wolf Creek, Middle Fork Wolf Creek, East Fork Wolf Creek, and Coal Creek, all tributary to the White River. South Fork Reservoir No. 2 is a proposed reservoir located on the channel of the White River as described in subparagraph 7.B. below. South Fork Reservoir No. 1 and South Fork Reservoir No. 2 are each capable of storing the entire 85,342.4 acre feet decreed to this water storage right. Applicant does not intend to construct both reservoirs;

rather, Applicant intends to use one of these two alternative sites as the location of storage for up to the entire 85,342.4 acre feet currently decreed to the South Fork Reservoir water storage right. (South Fork Reservoir No. 1 and South Fork Reservoir No. 2 are the same as the Wolf Creek Off-Channel Dam and Reservoir and Wolf Creek Mainstem Dam and Reservoir, which are the subject of the application filed by the Rio Blanco Water Conservancy District in Case No. 14CW3043, Water Division 6). Applicant also intends to construct an additional reservoir on the channel of Yellow Creek (known as Bar D Reservoir), as described in subparagraph 7.C. below, that will store up to 6,500 acre feet of the water currently decreed to the South Fork Reservoir Right. Water to fill Bar D Reservoir No. 1 may be diverted directly from the White River at a point described in subparagraph 7.C. below, or may be initially stored in South Fork Reservoir No. 1 or South Fork Reservoir No. 2 and later delivered via pipeline to Bar D Reservoir.

a. *Description of South Fork Reservoir No. 1:*

- (1) *Location:* The left abutment (looking downstream) of the South Fork Reservoir No. 1 Dam is located in the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 23, Township 3 North, Range 99 West of the 6th P.M., at a point 1,007 feet east of the west section line of Section 23 and 1,450 feet north of the south section line of Section 23, in Rio Blanco County, Colorado. This point is depicted on the location maps attached hereto as **Exhibits A and B**.
- (2) *Sources:* White River, via the South Fork Reservoir No. 1 Pump and Pipeline as described below and natural inflow from Divide Creek, Wolf Creek, Middle Fork Wolf Creek, East Fork Wolf Creek, and Coal Creek, all tributary to the White River.
- (3) *Dimensions:*
 - a. *Surface area of high water line:* 3,106 acres.
 - b. *Vertical height of dam in feet:* 122 feet.
 - c. *Length of dam in feet:* 3,300 feet.
 - d. *Total capacity of reservoir:* 85,342.4 acre feet.
 - e. *Active capacity:* 85,342.4 acre feet.
 - f. *Dead storage:* None.
- (4) *Structure used to fill reservoir:* South Fork Reservoir No. 1 Pump and Pipeline.
 - a. *Location:* The diversion point from the White River for the South Fork Reservoir No. 1 is located in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section

27, Township 3 North, Range 99 West of the 6th P.M., at a point 480 feet west of the east section line of Section 27 and 2,620 feet north of the south section line of Section 27, in Rio Blanco County, Colorado. This point is depicted on the location maps attached hereto as **Exhibits A and B**.

- b. *Capacity: 400 c.f.s.*
- c. *Maximum rate of diversion: 400 c.f.s.*
- b. *Description of South Fork Reservoir No. 2:*
 - (1) *Location:* The left abutment (looking downstream) of the dam of South Fork Reservoir No. 2 is located in the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 34, Township 3 North, Range 99 West of the 6th P.M., at a point 390 feet east of the west section line of Section 34 and 3,730 feet north of the south section line of Section 34, in Rio Blanco County, Colorado. This point is depicted on the location map attached hereto as **Exhibits A and B**.
 - (2) *Source:* White River.
 - (3) *Dimensions:*
 - a. *Surface area of high water line:* 4,801 acres.
 - b. *Vertical height of dam in feet:* 126 feet.
 - c. *Length of dam in feet:* 2,500 feet.
 - d. *Total capacity of reservoir:* 85,342.4 acre feet.
 - e. *Active capacity:* 85,342.4 acre feet.
 - f. *Dead storage:* None.
- c. *Description of Bar D Reservoir:*
 - (1) *Location:* The left abutment (looking downstream) of the Bar D Reservoir dam is located in the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 21, Township 1 South, Range 98 West of the 6th P.M., at a point 1,832 feet east of the west section line of Section 21 and 550 feet south of the north section line of Section 21 in Rio Blanco County, Colorado. The location of Bar D Reservoir is depicted on the location maps attached hereto as **Exhibits A and C**.
 - (2) *Source:* White River, via Bar D Reservoir Pump and Pipeline.

(3) *Dimensions:*

- a. *Surface area of high water line:* Approximately 290 acres.
- b. *Vertical height of dam in feet:* Approximately 80 feet.
- c. *Length of dam in feet:* 1,120 feet.
- d. *Total capacity of reservoir:* 6,500 acre feet.
- e. *Active capacity:* 6,500 acre feet.
- f. *Dead storage:* None.

(4) *Structure used to fill reservoir:* Bar D Reservoir Pump and Pipeline.

- a. *Location:* The diversion point from the White River for the Bar D Reservoir is located in the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 2, Township 2 North, Range 98 West of the 6th P.M., at a point 1,355 feet east of the west section line of Section 2 and 1,152 feet south of the north section line of Section 2, in Rio Blanco County, Colorado. The location of Bar D Reservoir Pump and Pipeline is depicted on the location maps attached hereto as **Exhibits A and B**.
- b. *Capacity:* 70 c.f.s.
- c. *Maximum rate of diversion:* 70 c.f.s.

8. Proposed Terms and Conditions. The Applicant has proposed that approval of the change of water right requested herein be subject to the following terms and conditions:

- A. Exercise of the South Fork Reservoir Right at the locations approved herein shall be limited to the amount of water physically and legally available at the originally-decreed location of the South Fork Reservoir Right. The amount of water physically available at the originally-decreed location of the South Fork Reservoir Right shall be measured at the site of the USGS gaging station No. 09303500, South Fork White River near Buford, CO, Latitude 39°55'18", Longitude 107°33'04" (NAD27).
- B. In the exercise of the South Fork Reservoir Right at the new locations approved herein, Applicant shall not place an administrative call upon water rights having priorities senior to December 29, 2017.

- C. All water physically and legally available at the originally-decreed location of the South Fork Reservoir Right shall be administered and protected for delivery by the Division Engineer from the originally-decreed location of the South Fork Reservoir Right to the locations approved herein.
9. Approval of Change. The Referee finds and concludes that, provided the subject conditional water right is exercised in accordance with the terms and conditions of this decree, the change requested in the Application will not injuriously affect the owner or persons entitled to use water under a vested water right or a decreed conditional water right.

CONCLUSIONS OF LAW

Based upon and fully incorporating the Findings of Fact set forth above, the Court concludes as a matter of law that:

10. Notice. All notices required by law have been properly made, including as required under C.R.S. § 37-92-302(3).
11. Personal and Subject Matter Jurisdiction. The Court has jurisdiction over the Application and over all entities or persons who had standing to appear, even though they did not do so. C.R.S. §§ 37-92-301(2) and -303 (1).
12. Application Complete. The Application is complete, covering all applicable matters required pursuant to the Water Right Determination and Administration Act of 1969. C.R.S. §§ 37-92-101, *et seq.*
13. Authority for Approval. The Court has authority to approve the change of water right requested in the Application. C.R.S. §§ 37-92-301(2), -302, -303(1), and -304.
14. Approval of Change Required if No Injury. A change of water right shall be approved if it will not injuriously affect the owner or persons entitled to use water under a vested water right or decreed conditional water right. C.R.S. § 37-92-305(3).
15. Court to Retain Jurisdiction. Any decree approving a change of water right must be conditioned upon the retained jurisdiction of the Court for a period necessary or desirable to preclude or remedy any injury to the vested rights of others. C.R.S. § 37-92-304(6).
16. Contemplated Draft. For change of conditional water right, standard is “contemplated draft” as set forth in *Twin Lakes Reservoir and Canal Co. v. City of Aspen*, 193 Colo. 478, 568 P.2d 45 (Colo. 1977).
17. Requirements for Decree Fulfilled. The Applicant has fulfilled all legal requirements for a decree for the requested change of water right.

RULING OF THE REFEREE

18. Findings and Conclusions Incorporated. The Findings of Fact and Conclusions of Law as set forth above are incorporated herein by reference and are hereby modified as necessary to constitute part of the Ruling of the Referee and final Decree of the Water Court.
19. Change. The Court hereby approves and decrees the change of water right for South Fork Reservoir, as more particularly described above. The approved change in water right is subject to the terms and conditions of this decree.
20. Retained Jurisdiction. In consideration of the specific findings and conclusions made herein, and in conformance with C.R.S. § 37-92-304(6), the change of water right decreed herein shall be subject to reconsideration by the Water Judge on the question of injury to the vested water rights of others for a period commencing on the date of entry of this decree and continuing for [TBD] years thereafter. If no petition for reconsideration of this decree is filed within said year, retention of jurisdiction for this purpose shall automatically expire. Any party that desires to have the Court reconsider the question of injury based on the change approved in this case must file a verified petition with the Court specifically identifying the alleged injury and setting forth the facts demonstrating that the cause of such injury is the result of the change of water right approved herein. The party filing the petition shall have the burden of going forward to establish the prima facie facts alleged in the petition. If the Court finds those facts to be established, the Applicant shall thereupon bear the burden of proof to show (a) that any modification sought by the Applicant will avoid injury to other water rights, or (b) that any modification sought by the petitioner is not required to avoid injury to other water rights, or (c) that any term or condition proposed by Applicant in response to the petition does avoid injury to other water rights.

A copy of the Ruling shall be filed with the Division Engineer for Water Division 6 and with the State Engineer.

It is further ORDERED that this Ruling shall be filed with the Water Clerk, subject to judicial review.

DATED this _____ day of _____, 20_____.

BY THE REFEREE:

Water Referee, Water Division 6
State of Colorado

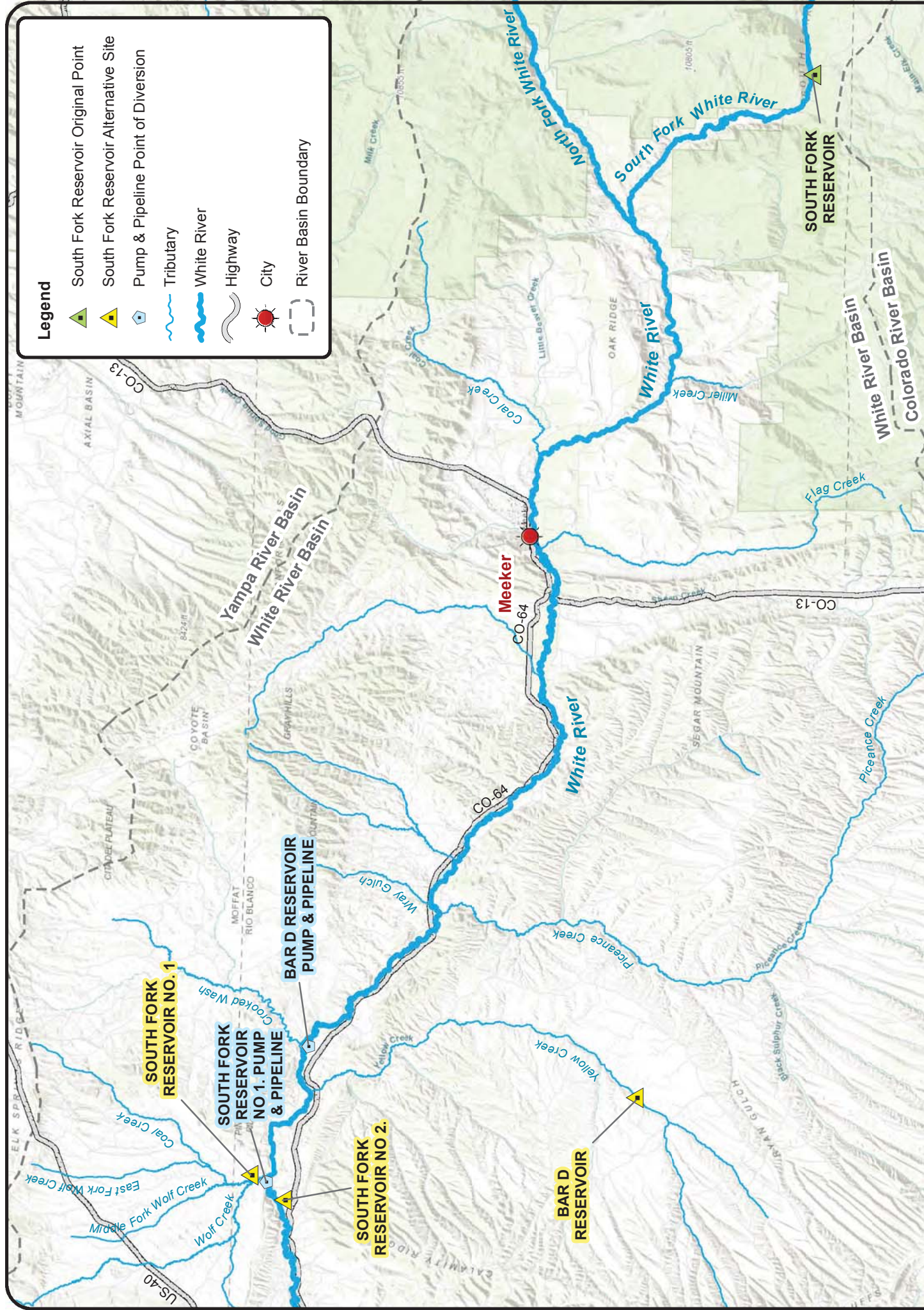
DECREE OF THE WATER COURT

No protest was filed in this matter, and accordingly, the foregoing Ruling of the Referee is confirmed and approved, and is made the Decree of the Water Court.

SO ORDERED this _____ day of _____, 20_____.

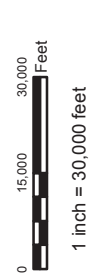

BY THE COURT:


Water Judge, Water Division 6
State of Colorado



Legend

- South Fork Reservoir Original Point
- South Fork Reservoir Alternative Site
- Pump & Pipeline Point of Diversion
- Tributary
- White River
- Highway
- City
- River Basin Boundary



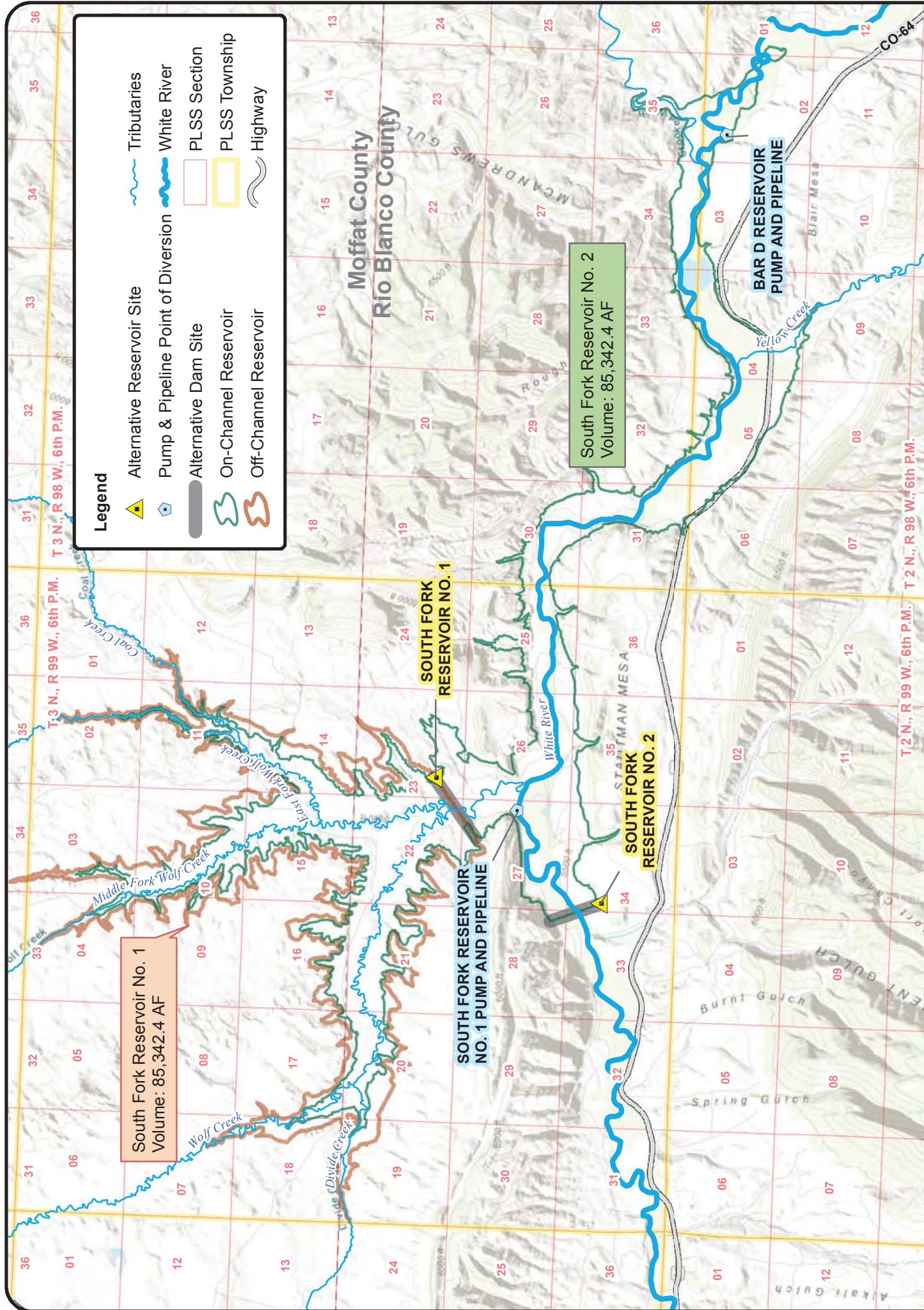
 118 W. Sixth St., Suite 200 Glenwood Springs, CO 81601 970.945.1004 www.sgm-inc.com	EXHIBIT A South Fork Reservoir Overview Map TerraCarta Energy Resources, LLC			
	Date:	12/20/2017	Job No.	2015-321.001.ph.08
	Coordinate System:	NAD 1983 StatePlane Colorado North FIPS 5001 Feet		
	Data Sources:	SGM, TCER, CDSS, CDWR, USGS, ESRI		
	File:	I:\2015\2015-321-TerraCarta\008-South Fork Reservoir Modeling\H-GIS\WXDs\ExhibitA-SouthForkReservoirSitesOverview.mxd		
	The information displayed above is intended for general planning purposes. Refer to legal documentation/data sources for descriptions/locations.			

BRL

Map by:

Projection:

Page:



Legend

Alternative Reservoir Site

Pump & Pipeline Point of Diversion

Alternative Dam Site

On-Channel Reservoir

Off-Channel Reservoir

Tributaries

White River

PLSS Section

PLSS Township

Highway

South Fork Reservoir No. 1
Volume: 85,342.4 AF

South Fork Reservoir No. 2
Volume: 85,342.4 AF

**BAR D RESERVOIR
PUMP AND PIPELINE**

**SOUTH FORK
RESERVOIR NO. 1**

**SOUTH FORK RESERVOIR
NO. 1 PUMP AND PIPELINE**

**SOUTH FORK
RESERVOIR NO. 2**









1 inch = 6,000 feet

	EXHIBIT B		BRL
	South Fork Reservoir Nos. 1 & 2		
	TerraCarta Energy Resources, LLC		
	118 W. Sixth St., Suite 200 Glenwood Springs, CO 81601 970.945.1004 www.sgm-inc.com		

Date:	12/20/2017	Job No.	2015-321.001.ph.08	Map by:	Lambert Conformal Conic
Coordinate System:	NAD 1983 StatePlane Colorado North FIPS 5001 Feet			Projection:	Lambert Conformal Conic
Data Sources:	SGM, TCER, CDSS, CDWR, USGS, PLSS, ESRI			Page:	1/1
File:	I:\2015\2015-321-TerraCarta\008-South Fork Reservoir Modeling\GIS\MXDs\ExhibitB-SouthForkResAltPls@WolfCr.mxd				

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Legend

-  Alternative Reservoir Site
-  Bar D Reservoir
-  Alternative Dam Site
-  TerraCarta Land Ownership
-  Tributary
-  Highway
-  Rio Blanco County Road
-  PLSS Section

